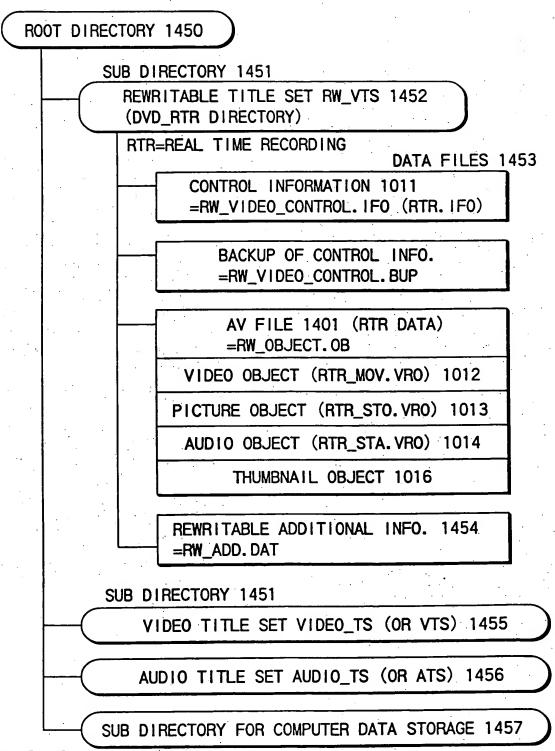
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REWRITABLE OPTICAL DISC (DVD\_RTR\_DISC)/1001 INNER SIDE 1006 OUTER SIDE 1007 LEAD-IN VOL. & FILE DATA AREA LEAD-OUT **AREA 1002** MANAGER 1004 AREA 1005 (B) INFO. 1003 (EMBOSSED/ (REWRITABLE (REWRITABLE REWRITABLE (REWRITABLE DATA ZONE) DATA ZONE) DATA ZONE) <u>DATA ZONE)</u> AUDIO & VIDEO COMPUTER COMPUTER (C) DATA AREA 1008 DATA AREA 1009 DATA AREA 1010 **ANCHOR** CONTROL THUMB-POINTER VIDEO PICTURE AUDIO INFO. NAIL FOR CONT-**OBJECTS OBJECTS OBJECTS** 1011 **OBJECTS** ROL INFO. 1012 1013 1014 (RTR. 1F0) 1016 1015 **PLAYBACK** AV DATA **RECORDING** EDIT THUMBNA I L CONTROL CONTROL CONTROL CONTROL CONTROL INFO. 1101 INFO. 1021 INFO. 1022 INFO. 1023 INFO. 1024 (RTR\_VMG) PGC CELL ALLOC-VIDEO VIDEO TITLE SET CONTROL PLAYBACK ATION **OBJECT** (F)INFO. 1103 INFO. 1108 MAP TABLE INFO. 1106 INFO. 1107 (RTR\_VMGI) (PGCI) (CI) 1105 (AVFIT)

FIG. 1



•			٠.										
(A)					AV F	ILE 14	101		. ÷				
				VTS (	OR RTF	R_MOV.	VRC	)) 14	102				-
(B)				· · ·					<u>.</u>		<del></del>	·	
		РТТ	(OR C	HAPTER	) 1407	7				PT	T 1408	3	
(c)		å	VOE	3 1403				••••	VOB 1404		VOB	140	)5
·											i.		
(D)	) o	٧	OBU 14	11		V0Bl	. 1	7 · 1.	VOBI		V0BU		
Ĭ					-								
(E)	V_ PCK 1421	SP_ PCK 1422	A_ PCK 2 1423	DM_ PCK 1424		V_ PCK 1425	•	••••	V_ PCK 1426		V_ PCK 1427		••••
	SEC- TOR	SEC- TOR	- SEC- TOR	SEC-	••••	SEC- TOR		••••	SEC- TOR		SEC- TOR		
(F)	1431	1432		1434		1435		``	1436		1437	:	
	VII PAI			DIO RT	SI	ZE OF	ĘA	CH S	ECTOR	=20	48 BY	TES !	5
(G)			0 0 0 1 1 4 4 0				LL 141		CELI 1442		CELL 1443		
(H)			8 8 8 8	· .	0	PC	3C	(OR	PGCI)	14	146		
		. :		•		(		••••					
(1)	÷		Ì	AUDIO	FRAME			1	NUDIO	FR	AME		-
		٠.	·	• • • • • • • • • • • • • • • • • • • •		••••••		•••••			-		
(J)	SEQ HEADE		OP_ EADER	I-PIC (V_PA		SEQ. END_ CODE	.	UI	JB-PIC NIT SE SP_PAC	PU		•	• .
	FI	G. :	3										

	æ	<b>—</b>	LSNg		
AV FILE 1401	3) # (3) 1465	EXTENT # £ 1475			
	>	ш	LSNf+1		
	Œ	<b> </b>	LSNf		
	ECOR AREA 1460	EXTENT # \$ 1470			
	UNB	ш	LSNe+1		
			LSNe		
	V0B #2 1462	EXTENT # β 1472			
	<b>&gt;</b>	ш	LSNd+1		
	3	<b>—</b>	LSNd		
	0B # (2) 1464	EXTENT # 8 1474			
W	<b>&gt;</b>	ш	LSNc+1		
			LSNc		
	VOB #1 1461	ENT α 71			
	V0B	EXTENT #α 1471	LSNb+2		
		¥	LSNb+1		
			LSNb		
	VOB #3 (1) 1463	EXTENT # γ 1473			
	V0B (1	# E	LSNa+2		
ī		·	LSNa+1		

←SMALLER LOGICAL SECTOR NUMBER (LSN) ← INNER SIDE OF OPTICAL DISC 1001

LARGER LOGICAL SECTOR NUMBER (LSN)→ OUTER SIDE OF OPTICAL DISC 1001→

# F16.4

	•	•		
	CONTENTS OF		NUMBER OF EXTENTS IN UNRECORDED AREA 1601	1
	ALLOCATION MAP TABLE		1ST ADR. (LSN) OF 1ST EXTENT IN UNRECORDED	e–a
	1105	<b>-</b>	AREA 1606	
	DISTRIBUTION		SIZE (SECTORS) OF 1ST	4
	INFORMATION OF POSITIONS OF		EXTENT IN UNRECORDED  AREA 1614	f-e
1	JNRECORDED		NUMBER OF EXTENTS	1
	AREA 1621		IN VOB #1 1602	
L			1ST ADR. (LSN) OF 1ST	b-a
	DISTRIBUTION		EXTENT IN VOB #1 1607	
	NFORMATION OF POSITIONS OF		SIZE (SECTORS) OF 1ST	c-b
	RECORDED DATA		EXTENT IN VOB #1 1615	
	S TO VOB #1		NUMBER OF EXTENTS	1
1	622		IN VOB #2 1603	
D	ISTRIBUTION		1ST ADR. (LSN) OF 1ST   EXTENT IN VOB #2 1608	d–a
I -	NFORMATION OF		SIZE (SECTORS) OF 1ST	• • • • • • • • • • • • • • • • • • • •
P	OSITIONS OF		EXTENT IN VOB #2 1616	e–d
	ECORDED DATA		NUMBER OF EXTENTS	
1	S TO VOB #2		IN VOB #3 1604	3
***	623		1ST ADR. (LSN) OF 1ST	
	ISTRIBUTION NEORMATION OF		EXTENT IN VOB #3 1609	1
	OSITIONS OF		SIZE (SECTORS) OF 1ST	
	ECORDED DATA		EXTENT IN VOB #3 1617	b-a
A	S TO VOB #3		1ST ADR. (LSN) OF 2ND	
1	624		EXTENT IN VOB #3 1610	c-a
		\ .	SIZE (SECTORS) OF 2ND	4.0
			EXTENT IN VOB #3 1618	d-c
			1ST ADR. (LSN) OF 3RD	f–a
		\ [	EXTENT IN VOB #3 1611	1-a
			SIZE (SECTORS) OF 3RD	g–f
	FIG. 5	V	EXTENT IN VOB #3 1619	9_'

PGC CONTROL INFO. (OR UD\_PGCIT) 1103 PGC INFORMATION MANAGEMENT INFO. (OR UD\_PGCIT) 1052 PGC INFORMATION PGC GENERAL INFO. SEARCH POINTER #1 (OR PGC\_GI) 1061 (UD\_PGCI\_SRP#1) 1053 PROGRAM INFO. (PGI#1) PGC INFORMATION SEARCH POINTER #n (UD\_PGCI\_SRP#n) 1054 PROGRAM INFO. PGC INFORMATION #1 (PGI#m) (OR UD\_PGCI#1) 1055 CELL ID #1 (OR CI\_SRP#1) PGC INFORMATION #i (OR UD PGCI#i) 1056 CELL ID #m 1151 (OR CI\_SRP#m) PGC INFORMATION #n CELL INFO. (CI#1) (OR UD\_PGC1#n) 1057 #i=ANY ONE OF #1 TO #n CELL INFO. (CI#n)

- \*1> PGC INFORMATION (OR UD\_PGCI) CAN DEFINE A GROUP OF ONE OR MORE PROGRAMS;
- \*2> EACH PROGRAM CAN BE FORMED OF ONE OR MORE CELLS;
- \*3> EACH CELL CAN BE SPECIFIED BY CELL ID (OR CI\_SRP);
- \*4> EACH CELL ID (OR CI\_SRP) CAN INDICATE POSITION (OR START ADDRESS) OF CELL INFORMATION (OR CI);
- \*5> EACH CELL INFORMATION (OR CI) CAN DETERMINE START TIME AND END TIME OF PRESENTATION OF CELL

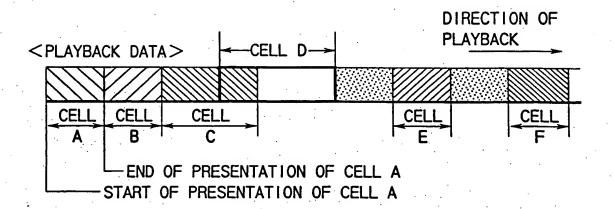


FIG. 7A

## PGC INFORMATION (PGCI)

PGC#1	1081	PGC#2	1082	PGC#3	1083
NUMBE CELLS	R OF S=3	NUMBI CELL:	ER OF S=3	NUMB! CELLS	ER OF S=5
#1	CELL A	#1	CELL D	#1	CELL E
#2	CELL B	#2	CELL E	#2	CELL A
#3	CELL C	#3	CELL F	#3	CELL D
	<u> </u>			#4	CELL B
				#5	CELL E
CELL ID	CELL INFO.	CELL ID	CELL INFO.	CELL ID	CELL INFO.
CI_SRP #m=3	CI #n=3	CI_SRP #m=3	CI #n=3	CI_SRP #m = 5	CI #n=4

FIG. 7B

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NUMBER OF VOB IN VTS OR PLAY LIST SEARCH POINTER TABLE INFO. (PL\_SRPTI) 1756 1ST VOB\_ID IN VOB SEQ. OR 1ST PLAY LIST SEARCH POINTER (PL\_SRP#1) 1757 PLAY LIST 2ND VOB\_ID IN VOB SEQ. SEARCH POINTER OR 2ND PLAY LIST SEARCH TABLE POINTER (PL\_SRP#2) 1758 (PL SRPT) VIDEO nTH VOB\_ID IN VOB SEQ. MANAGER INFO. OR nTH PLAY LIST SEARCH MANAGEMENT POINTER (PL\_SRP#n) TABLE (VMGI\_MAT) RTR VIDEO MANAGER VTSI 1106 INFO. (RTR\_VMGI) <u>은</u> (RTR\_VMGI) MOVIE AV FILE INFO. VTS GENERAL (RTR. TABLE (M\_AVFIT) INFO. 1751 STILL PICTURE AV FILE RTR\_VMG **VOB SEQUENCE** INFO. TABLE (S\_AVFIT) INFO. 1752 ORIGINAL PGC INFO. PTT INFO. (ORG\_PGCI) DATA 1753 USER DEFINED PGC VTS TIME MAP NAVIGATION INFO. TABLE (UD\_PGCIT) **TABLE 1754** TEXT DATA MANAGER (TXTDT\_MG) MANUFACTURER'S INFO. TABLE (MNFIT) FIG. 8

F16.9A			AV	AV FILE 1401	11			
F16.9B			VTS (OR RTR_MOV. VRO) 1402	TR_MOV. VF	30) 1402			
	VOB#1 1461	V0B#2 1462		> -	V0B#3 1763		UNRE	UNRECORDED AREA 1460
F16.9C	EXTENT#α 1471	EXTENT# B 1472	8   EXTENT# γ 1473		EXTENT# 8 1474	EXTENT# ¢		EXTENT# \$ 1470
							. *	
FIG. 9D			AV	AV FILE 1401	10			
F16.9E	<b>\</b>	TS (OR RTR	VTS (OR RTR_MOV. VRO/RTR_STO. VRO/RTR_STA. VRO) 1402	R_STO. VR	0/RTR_STA	V. VRO) 1402		
:			<u>\</u>	-#190\^-S	#190	1		
	VOB#A VC	VOB#B VOB#C	tc V0B#D	V0B#E	V0B#F 1776	V0B#G V	V0B#H	V08#1 1779
	실	<b> </b> ▼		PICTURE	AUDIO		THUMBNAIL	MIL
되 있	OBJECTS 1012	0BJECTS 1014		0BJECTS 1013	0BJECTS 1014	CTS	08JECTS 1016	လ
	RTR_MOV. VRO→ RTR_STA. VRO ~	/R0 /		RTR_STO. VRO-+		-RTR_STA.VR0→		· *

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				т	1			
	1#) 1631		A_PCK 1692	A_STREAM	<b>^</b>	#) 1632	344	A_PCK 1695
	90			4	PAR	90		
	OICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1631		A_PCK 1691	A_STREAM	AUDIO PART	PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1632	V0BU 1644	V_PCK 1667
	AT	_		∢'	1	ATI		
	GROUP REL	URE) 164	SP_PCK 1681	SP_STREAM		SROUP REL	1	V_PCK 1666
	JRE VOB	ILL PICT	SP_P 1681	SP_S		JRE VOB (	43	A_PCK 1694
	틸	ST		_		틸	V0BU 1643	
	STILL P	VOBU (FOR ONE STILL PICTURE) 1641	V_PCK 1663	DUMNY DATA	PART	STILL P	NOBI	V_PCK 1665
	ECTS (OF	VOBU		ď	VIDEO PART	ECTS (OR	.) 1642	A_PCK 1693
	TURE OBJ		V_PCK 1662	CTURE 1706		TURE OBJ	STILL PICT.) 1642	SP_PCK 1682
ŀ				ICTL		PIC		
	FIG. 10A VOB FOR		V_PCK 1661	I-P1(		F1G. 10D VOB FOR F	FIG. 10E VOBU (ONE	FIG. 10F V-PCK 1664
	OA	0B		FIG. 100		0	OE	OF
		FIG. 10B	•	-			-	-
	9	9		9		9	9	<u>6</u>
	LL.	Щ	. ·	Щ		Ļ,	L	الله الله

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FIG. 10G VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1633	FIG. 10H VOBU (ONE STILL PICTURE) 1645 VOBU 1646 VOBU 1647	V_PCK         V_PCK         V_PCK         SP_PCK         V_PCK         V_PCK         V_PCK           1668         1669         1670         1683         1671         1672         1673         1674	FIG. 101 I-PICTURE 1707 DUMMY SP_ I-PICTURE 1708 DUMMY 1704 STREAM STREAM			FIG. 10J VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1634	FIG. 10K VOBU (ONE STILL PICTURE) 1648 VOBU 1649 VOBU 1650	FIG. 10L 1684 1696 1697 1698 1699 1700 1701 A PCK A PC	AUDIO PART		FIG. 100 FIG. 101 FIG. 101 FIG. 101	VOB FOR 1668 1-P ICT 1688 1684 (VOBU (C) 1684 (C		OBJECTS  OBJECTS	(OR STILL SP_CK STILL STREAM STREAM 1698 1698 1698 1698 1698 1698 1698 1698	L PICTU 1671 1671 1699 V V	NE VOB GRC VOBU 164 1672 TURE 1708 -VIDEO PAF -VIDEO PA	V PCK 1673 1705 IT TOP RELATI	\\ \text{\tin}\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text	S_V0G1#) 163 V_PCK 1674  I-PICTURE 170 VIDEO PART- V0BU 1650  V0BU 1650  A_PCK  A_PCK	
--	--	--	---	--	--	--	--	--	------------	--	--	--	--	--	---	--	--	-------------------------------	--	--	--

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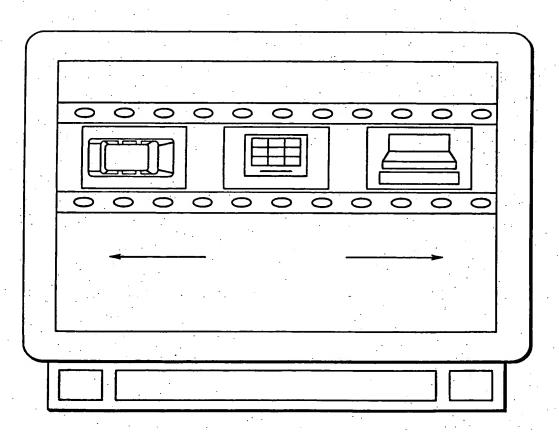


FIG. 11

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STILL PICTURE AV FILE (S\_AVFIT)

STILL PICTURE AV FILE INFO. TABLE INFO. (S\_AVFITI)

STILL PICT. VOB STREAM INFO. #1 (S\_VOB\_STI#1)

STILL PICT. VOB STREAM INFO. #n (S\_VOB\_STI#n)

STILL PICTURE AV FILE INFO. (S\_AVFI)

STILL PICT. AD-DITIONAL AUDIO STREAM INFO. #1 (S\_AA\_STI#1)

STILL PICT. AD-DITIONAL AUDIO STREAM INFO. #m (S\_AA\_STI#m)

STILL PICTURE
ADDITIONAL
AUDIO FILE INFO.
(S\_AAFI)

VOB INFO. FOR
PICT. OBJECTS
MANAGEMENT
INFO. 1721
(OR S\_AVFI\_GI)
SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#1 1726 (OR
S\_VOGI\_SRP#1)
SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#i 1727 (OR
S\_VOGI\_SRP#i)

SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#k 1728 (OR
S\_VOGI\_SRP#k)
VOB INFO. FOR

PICT. OBJECTS #1 1731 (OR S\_VOGI#1)

VOB INFO. FOR PICT. OBJECTS #i 1732

(OR S\_VOGI#i)

VOB INFO. FOR PICT. OBJECTS #k 1733 (OR S\_VOGI#k)

FIG. 12 #i=ANY ONE OF #1 TO #k

VOB GENERAL
INFORMATION
FOR PICTURE
OBJECTS
1736 (OR
STILL PICTURE
VOB GROUP
GENERAL INFO.
S\_VOG\_GI)

VOB ATTRIB.
INFORMATION
FOR PICTURE
OBJECTS
1737

VOBU MAP FOR PICTURE OBJECTS 1738 (OR STILL PICTIRE VOB ENTRES S\_VOB\_ENT#) Oblon, Spivak, et al.
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VOB ATTRIB. INFO. FOR PICT.	·	STILL PICT. ENTRY TYPE (S_VOB_ ENT_TY)
0BJ. 1737	, e e e e e	NUMBER OF STILL PICT.
VOBU MAP FOR PICT. OBJ. 1738 (S_VOB_ ENT#)		(OR NUMBER OF VOBUS) IN CORRES- PONDING VOB 1801 (OR S_VOB_NS) INFO. OF 1ST STILL PICT.
VOB GENERAL INFO. 1736 OR S_VOG_ GI		IN CORRES-PONDING VOB 1802 INFO. OF 2ND STILL PICT. IN CORRES-PONDING VOB 1803 INFO. OF 3RD STILL PICT.
		IN CORRES- PONDING VOB 1804
	ì	

DATA SIZE OF STILL PICTURE (OR VOBU) INDICATED BY USED SECTORS 1806 (OR VIDEO PART SIZE V\_PART\_SZ/ AUDIO PART SIZE A\_PART\_SZ) DISPLAY TIME OF ONE STILL PICTURE 1807 REPRESENTED BY PLAYBACK TIME OF AUDIO PART (IF VOBU CONTAINS A PCK) OR REPRESENTED BY DISPLAY TIME OF VIDEO PART (IF VOBU CONTAINS NO A\_PCK) ADDRESS OF 1ST V PCK IN VOBU 1808 (OR S\_VOG\_SA) SIZE OF I-PICTURE IN VOBU (INDICATED BY TOTAL BYTES) 1809 🔨 PRESENTATION START TIME S\_PTM OF STILL PICTURE (V\_PCK/SP\_PCK) 1810 1ST SYSTEM CLOCK REFERENCE F SCR OF STILL. PICTURE  $(V_PCK/SP_PCK)$  1811 ADDRESS OF 1ST A PCK IN VOBU 1812 AUDIO S\_PTM (PRESENTATION START TIME OF A\_PCK) 1813 AUDIO E PTM (PRESENTATION END TIME OF A\_PCK) 1814 AUDIO F SCR (SYSTEM CK REF. OF 1ST A\_PCK IN VOBU) 1815 AUDIO L SCR (SYSTEM CK REF.

OF LAST A PCK IN VOBU) 1816

PLAYBACK TIME OF AUDIO PART A\_PB\_TM

FIG. 14A	*	lON	VOB #A 1821		
	V0BU 1825	V0BU 1826	9		V0BU 1827
FIG. 14B	STILL PICT. NO. 1	STILL PICT.	NO. 2		STILL PICT. NO. h
	STLPCT AUD10 1831 1841	STLPCT 1832	AUD10 8	STLPCT	STLPCT AUDIO
F16.14C	V_PCK A_PCK 1851 1861	V_PCK SP_PK 1852 1848	A_PCK 1862	V_PCK	\
	CONTENTS	IST STILL PICT			STS
FIG. 14D	SPECIFIED	V_PCK SP_PK 1852 1848	A_PCK 1865	V_PCK	V_PCK A_PCK 1854 1866
					)
	A_PCK 1864	V_PCK A_PCK 1855 1865	V_PCK 1856	V_PCK 1857	A_PCK V_PCK 1866 1858
F1G.14E	AUD10 1844	STLPCT AUDIO 1835 1845	STLPCT 1836	STLPCT 1837	AUDIO STLPCT
		STILL PICTURE		STILL PICTURE	CTIBE
		NO. j		NO. h+j-2	-2 -2 -
FIG. 14F		V0BU 1828		V0BU 1829	
FIG. 146	*	NOE	VOB #B 1822		

		·
CONTENTS (S_C1) OF CELL PLAYBACK INFO. (C1) FOR PICTURE OBJECTS 1870	EXAMPLE 1871 WITH RESPECT TO FIG.14	EXAMPLE 1872 WITH RESPECT TO FIG.14
CELL ID (CI_SRP) 1873		
TYPE INFORMATION OF CELL (C_TY) 1880		
ID INFORMATION OF VOB WITH V_PCK 1874	VOB #A	1821
STILL PICT. NUMBER 1875 IN VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL (S_S_VOB_ENTN)	2	1826
STILL PICT. NUMBER 1876 IN VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL (E_S_VOB_ENTN)	h	1827
ID INFORMATION OF VOB WITH A_PCK 1877	VOB #B	1822
STILL PICT. NUMBER 1878 IN VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL	j	1828
PRESENTATION TIME 1879 OF EACH STILL PICTURE HAVING NO CORRESPONDING A_PCK	2 SECONDS (ONE LINE)	

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CONTENTS OF CELL PLAYBACK INFO. (CI) FOR PTT
CELL ID (CI_SRP) 1883
TYPE INFO. OF CELL (C_TY) 1882
ID INFO. OF PTT WITH V_PCK 1884
STILL PICTURE NUMBER 1885 IN PTT OF VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL
STILL PICTURE NUMBER 1886 IN PTT OF VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL
ID INFO. OF PTT WITH A_PCK 1887
STILL PICTURE NUMBER 1888 IN PTT OF VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL
PRESENTATION TIME 1889 OF EACH STILL PICT. HAVING NO CORRESPONDING A_PCK

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STILL PICTURE AV FILE INFO. (S\_AVFI) FOR PTT (CHAPTER)

PTT INFO. FOR PICT. OBJECTS MANAGEMENT INFO. 1891

SEARCH POINTER
OF PIT INFO. FOR
PICT. OBJECTS
#1 1892

SEARCH POINTER
OF PTT INFO. FOR
PICT. OBJECTS
#2 1893

PTT INFO. FOR PICT. OBJECTS #1 1895

PTT INFO. FOR PICT. OBJECTS #2 1896

PTT GENERAL INFORMATION FOR PICTURE OBJECTS 1898

VOB MAP FOR PICTURE OBJECTS 1899 Oblon, Spivak, et al.
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VOB MAP FOR PICT. OBJECTS 1899

NUMBER OF STILL PICT. (OR NUMBER OF VOBs) IN CORRESPONDING PTT 1901 (OR S\_VOB\_Ns)

INFO. OF 1ST STILL PICT. IN CORRESPONDING PTT 1902

INFO. OF 2ND STILL PICT. IN CORRESPONDING PTT 1903 DATA SIZE OF STILL PICTURE (OR VOB) INDICATED BY USED SECTORS 1906

DISPLAY TIME OF ONE STILL PICTURE 1907 REPRESENTED BY PLAYBACK TIME OF AUDIO PART (IF VOB CONTAINS A\_PCK) OR REPRESENTED BY DISPLAY TIME OF VIDEO PART (IF VOB CONTAINS NO A\_PCK)

ADDRESS OF 1ST V\_PCK IN VOB 1908 (OR S\_VOG\_SA)

SIZE OF I-PICTURE IN VOB (INDICATED BY TOTAL BYTES) 1909

PRESENTATION START TIME S\_PTM OF STILL PICTURE (V\_PCK/SP\_PCK) 1910

1ST SYSTEM CLOCK REFERENCE F\_SCR OF STILL. PICTURE (V\_PCK/SP\_PCK) 1911

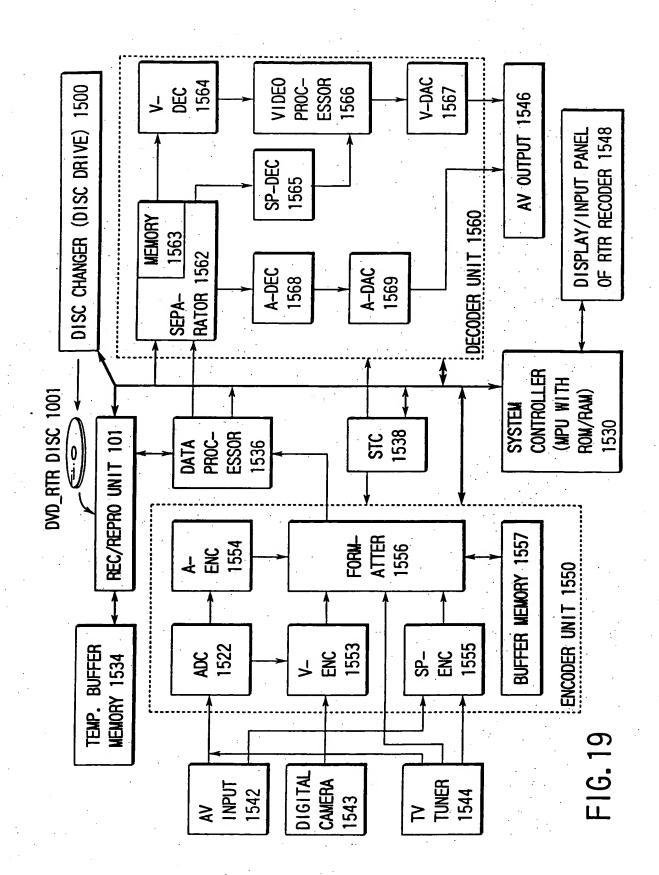
ADDRESS OF 1ST A\_PCK IN VOB 1912

AUDIO S\_PTM (PRESENTATION START TIME OF A\_PCK) 1913

AUDIO E\_PTM (PRESENTATION END TIME OF A\_PCK) 1914

AUDIO F\_SCR (SYSTEM CK REF. OF 1ST A\_PCK IN VOB) 1915

AUDIO L\_SCR (SYSTEM CK REF. OF LAST A\_PCK IN VOB) 1916



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**START** 

CONTINUOUSLY INPUT
DATA (JPEG OR BIT MAP)
OF STILL PICTURE FILE
FROM DIGITAL CAMERA
<ST1>

CONVERT INPUT STILL
PICTURE DATA INTO
I-PICTURE OF MPEG2
AT VIDEO ENCODER <ST2>

PREPARE VOBU STRUCTURE
OF EACH STILL PICTURE
AT FORMATTER, &
GROUP ONE OR MORE
STILL PICTURES
TO CONSTRUCT VOB <ST3>

OBTAIN ALL CONTENTS OF CONTROL INFORMATION (INCLUDING RTR. IFO) FROM DISC, & STORE OBTAINED CONTENTS IN RAM OF SYSTEM CONTROLLER <ST4>

OBTAIN INFORMATION OF ALLOCATION MAP TABLE FROM CONTROL INFORMATION STORED IN RAM, & SEARCH UNRECORDED AREA <ST5>

SEND CONTROL INFORMATION FROM SYSTEM CONTROLLER TO FORMATTER, DATA PROCESSOR, AND INFO. REC/REP UNIT <ST6>

IS VOB SUCCESSFULLY RECORDED

IN DISC? <ST7>

YES

PREPARE VOBU MAP (OR VOB MAP) AT SYSTEM CONTROLLER BASED ON ADDRESS INFORMATION RECORDED IN DISC <ST9>

ADDITIONALLY RECORD PREPARED VOBU MAP (OR VOB MAP) IN CONTROL INFORMATION PORTION OF DISC <ST10>

**END** 

FIG. 20

NO

START

OBTAIN ALL CONTENTS OF CONTROL INFORMATION (RTR. 1FO) FROM DISC, & STORE OBTAINED CONTENTS IN RAM OF SYSTEM CONTROLLER <ST11>

OBTAIN PLAYBACK CONTROL INFO. FROM CONTROL INFO. STORED IN RAM, & INTERPRETE OBTAINED INFORMATION AS TO MANNER OF REPRODUCTION <ST12>

SEARCH PROGRAM TO BE REPRODUCED BASED ON PGC CONTROL INFO. IN RAM, OBTAIN CELL(S) IN PGC INFORMATION OF SEARCHED PROGRAM, & OBTAIN VOB\_ID OR PTT\_ID SPECIFIED BY CORRESPONDING CELL FROM CELL PLAYBACK INFORMATION STORED IN RAM <ST13>

OBTAIN DISC ADDRESS OF VOB TO BE REPRODUCED BASED ON VOB INFORMATION OR PTT INFORMATION STORD IN RAM <ST14>

ACCESS VOB RECORDED IN DISC BASED ON CONTROL SIGNAL FROM SYSTEM CONTROLLER TO REPRODUCE INFORMATION OF VOB, & PROVIDE REPRODUCED INFORMATION AS AV OUTPUT FOR DISPLAY <\$T18>

RECEIVE ADDITIONAL INFO. INPUT BY USER WHILE DISPLAYING AV OUTPUT, & GROUP ONE OR MORE STILL PICTURES AT FORMATTER BASED ON USER-INPUT INFORMATION TO PREPARE VOB OR PTT <ST19>

RECORD INFORMATION OF VOB PREPARED BY FORMATTER <ST20>

END

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**START** 

OBTAIN ALL CONTENTS OF CONTROL INFORMATION (RTR.1FO) FROM DISC, & STORE OBTAINED CONTENTS IN RAM OF SYSTEM CONTROLLER <ST11>

OBTAIN PLAYBACK CONTROL INFO. FROM CONTROL INFO. STORED IN RAM, & INTERPRETE OBTAINED INFORMATION AS TO MANNER OF REPRODUCTION <ST12>

SEARCH PROGRAM TO BE REPRODUCED BASED ON PGC CONTROL INFO. IN RAM, OBTAIN CELL(S) IN PGC INFORMATION OF SEARCHED PROGRAM, & OBTAIN VOB\_ID OR PTT\_ID SPECIFIED BY CORRESPONDING CELL FROM CELL PLAYBACK INFORMATION STORED IN RAM <ST13>

OBTAIN DISC ADDRESS OF VOB TO BE REPRODUCED BASED ON VOB INFORMATION OR PTT INFORMATION STORD IN RAM <ST14>.

ACCESS VOB RECORDED IN DISC BASED ON CONTROL SIGNAL FROM SYSTEM CONTROLLER TO REPRODUCE INFORMATION OF VOB, & PROVIDE REPRODUCED INFORMATION AS AV OUTPUT FOR DISPLAY <ST18>

ACCESS VOB #A RECORDED IN DISC TO PROVIDE STILL PICTURE INFORMATION OF VOB #A <\$T16>

ACCESS VOB #B IN DISC TO REPRODUCE AUDIO INFORMATION OF VOB #B, & PROVIDE AUDIO INFO. OF VOB #B AND STILL PICTURE INFO. OF VOB #A AS AV OUTPUT FOR STILL PICTURE DISPLAY WITH SOUND <ST17>

**END** 

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USER DEFINED PGC INFO. TABLE INFORMATION (UD\_PGCITI) RTR\_VMG USER DEFINED PGCI SEARCH RTR VIDEO MANAGER POINTER #1 (UD\_PGCI\_SRP#1) INFO. (RTR\_VMGI) MOVIE AV FILE INFO. USER DEFINED PGCI SEARCH TABLE (M AVFIT) POINTER #n (UD\_PGCI\_SRP#n) STILL PICTURE AV USER DEFINED PGC INFO. #1 FILE INFO. TABLE (UD\_PGCI#1) (S\_AVFIT) ORIGINAL PGC INFORMATION USER DEFINED PGC INFO. #n (ORG\_PGCI) (UD\_PGCI#n) USER DEFINED PGC CONTENTS OF PGCI (ORIGINAL INFORMATION TABLE PGCI OR USER DEFINED PGCI) (UD\_PGCIT) PGC INFORMATION #1 (PGCI#1) TEXT DATA MANAGER PGC GENERAL INFO. (PGC\_GI) (TXTDT\_MG) PROGRAM INFO. #1 (PGI#1) MANUFACTURER'S INFO. TABLE (MNFIT) PROGRAM INFO. #m (PGI#m) START ADDRESS OF CELL INFO. SEARCH POINTER #1 CELL INFO. (CI\_SA) (CI SRP#1) CELL INFO. SEARCH POINTER #n MOVIE CELL INFO. (CI SRP#n)  $(M_CI)$ CELL INFO. #1 (CI#1) OR STILL PICTURE CELL INFO. #n (CI#n) CELL INFO. (S\_CI)

FIG. 23

STILL PICTURE CELL INFO. (S\_CI)

STILL PICTURE CELL GENERAL INFORMATION (S\_C\_GI)

STILL PICT. CELL ENTRY POINT INFORMATION #1 (S\_C\_EPI#1)

STILL PICT. CELL ENTRY POINT INFORMATION #n (S\_C\_EPI#n)

FIG. 24

## CONTENTS OF S\_C\_GI

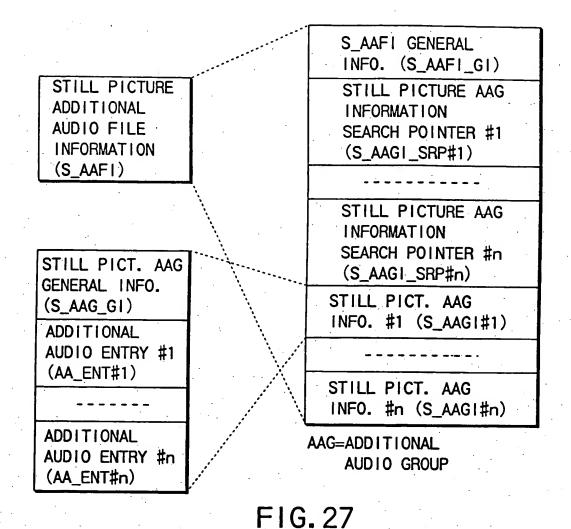
FIELD NAME	CONTENTS
RESERVED	RESERVED
C_TY	CELL TYPE
S_VOGI_SRPN	S_VOGI SEARCH POINTER NUMBER
C_EPI_Ns	NUMBER OF CELL ENTRY POINT INFO.
S_S_VOB_ENTN	START S_VOB_ENT NUMBER
E_S_VOB_ENTN	END S_VOB_ENT NUMBER

FIG. 25

## CONTENTS OF S\_C\_EPI

FIELD NAME	CONTENTS
EP_TY	ENTRY POINT TYPE
S_VOB_ENTN	S_VOB_ENT NUMBER
PRM_TXT1	PRIMARY TEXT INFORMATION

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#### CONTENTS OF S\_AAG\_GI

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FIELD NAME	CONTENTS
AA_ENT_Ns	NUMBER OF AA_ENT
S_AA_STIN	STILL PICTURE ADDITIONAL AUDIO STREAM INFORMATION NUMBER
S_AAG_SA	START ADDRESS OF THIS AAG IN STILL PICTURE ADDITIONAL AUDIO FILE

## CONTENTS OF AA\_ENT

FIELD NAME	CONTENTS
AA_TY	ADDITIONAL AUDIO TYPE
AA_SZ	SIZE OF ADDITIONAL AUDIO STREAM
AA_PB_TM	PLAYBACK TIME OF ADDITIONAL AUDIO STREAM (MEASURED BY VIDEO FIELDS)

## FIG. 29

## CONTENTS OF S\_VOG\_GI

FIELD NAME	CONTENTS
S_VOB_Ns	NUMBER OF S_VOBs
S_VOB_STIN	STILL PICTURE VOB STREAM INFORMATION NUMBER
FIRST_VOB_REC_TM	TIME WHEN THE FIRST VOB IN THIS VOB GROUP WAS RECORDED
LAST_VOB_REC_TM	TIME WHEN THE LAST VOB IN THIS VOB GROUP WAS RECORDED
S_VOG_SA	START ADDRESS OF THIS VOB GROUP IN STILL PICTURE AV FILE

FIG. 30

## CONTENTS OF S\_VOB\_ENT (TYPE 1)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART

## CONTENTS OF S\_VOB\_ENT (TYPE 2)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART (DESCRIBED IN VIDEO FIELDS)

FIG. 32

## CONTENTS OF S\_VOB\_ENT (TYPE 3)

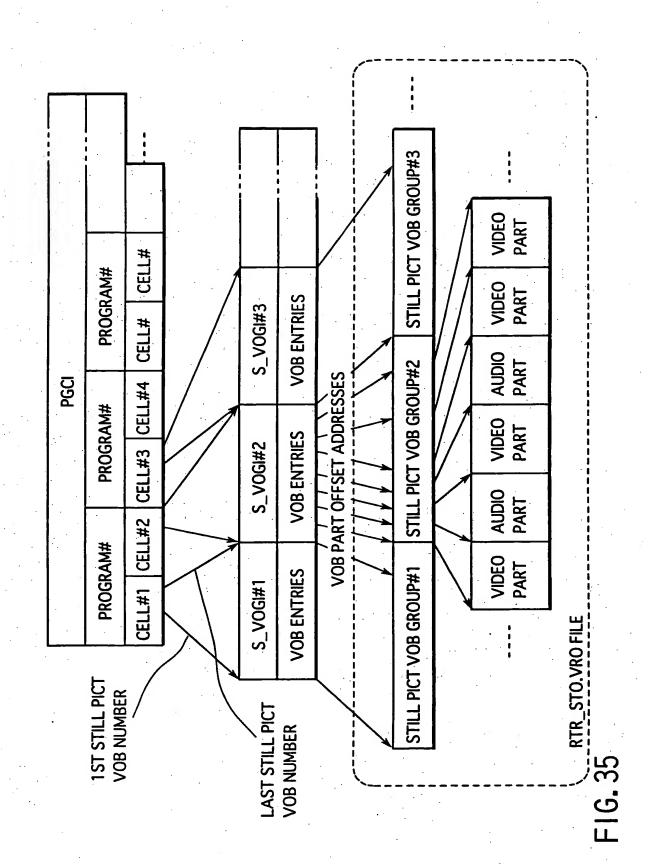
FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER

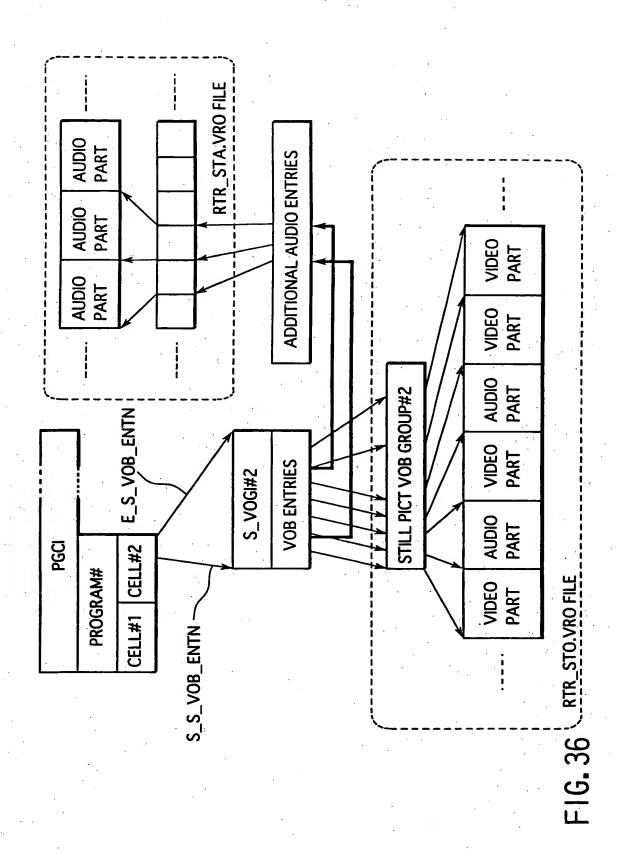
FIG. 33

## CONTENTS OF S\_VOB\_ENT (TYPE 4)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER
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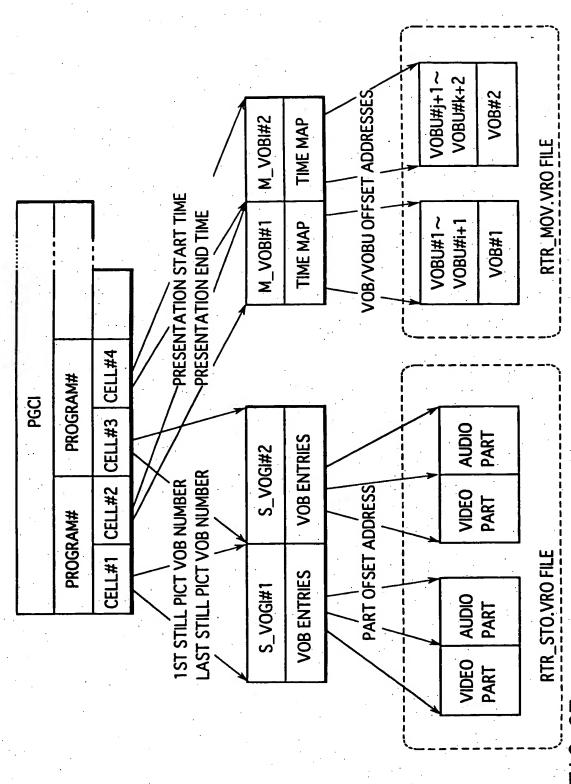
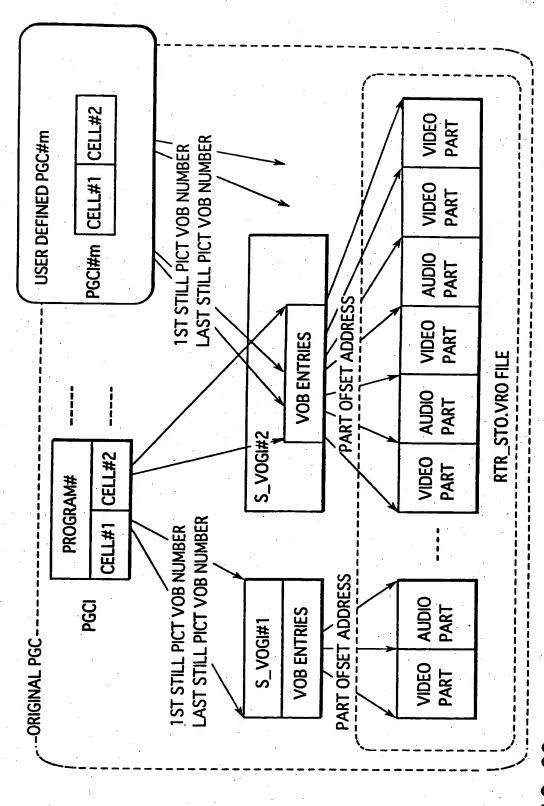


FIG. 37

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